Instruction Manual

1T-VS-622
Video to HDMI Scaler

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1.0 INTRODUCTION

Thanks for purchasing this 1T-VS-622 Video to HDMI Scaler from TV One. This Scaler converts analog Composite Video or Component S-Video to a fully compliant HDMI Output. It also provides audio flexibility by embedding external audio into the HDMI output signal as well as providing separate Toslink and R/L analog Stereo audio outputs. Our professional video conversion products have been serving the industry for over twenty years. TV One offers a full line of high quality Seamless Switchers, Video Scalers, Up/Down/Cross Converters, Analog-Digital Converters (SD/HD-SDI, HDMI, DVI), Format Converters, Standards Converters, TBC/Frame Synchronizers, Matrix Routing Switchers, Signal Distribution Amplifiers and Cat.5 Transmission Systems.

1.1 Liability Statement

Every effort has been made to ensure that this product is free of errors. TV One cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

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1.2 Features

- HDMI 1.2 and HDCP 1.1 and DVI 1.0 Compliant
- Toslink Digital Audio 2.0 LPCM
- Accepts either Composite or S-Video Input
- 3-D Motion Adaptive, 3-D De-interlacing, 3:2/2:2 Pull Down Detection/Recovery.
- Outputs PC Resolutions up to WUXGA or Video Resolutions from 480i to 1080p
- Automatically detects the resolution of the connected display
- OSD (On Screen Display)
- Adjustment of Contrast, Brightness, Hue, Sat., Sharpness & RGB levels
- Supports digital and analog audio inputs and outputs

2.0 SPECIFICATIONS

Video Input/Output	
CV or SV Video Input	1x RCA Connector, 1x S-Video Connector
HDMI V1.2 Output	1x via Type A Connector
Video Performance	
Standards Compliance	HDMI v1.2, HDCP 1.1, DVI 1.0
Output Resolutions	PC up to WUXGA, HD up to 1080p
Video Processing	3-D Motion Adaptive, 3-D de-interlacing, 3:2/2:2 Pull Down Detection/Recovery.
Video Adjustments	Contrast, Brightness, Hue, Sharpness, Saturation, R-G-B levels, Picture Size
Audio Inputs/Outputs	
Analog Stereo Input	2x via RCA Connectors
Analog Stereo Output	1x via 3.5mm Mini-Stereo Connector
Digital Input (Note 1)	1x SPDIF via Toslink Connector
Digital Output	1x SPDIF via Toslink Connector
Audio Performance	
Analog Stereo Input Level	2Vrms max @ 47KΩ
Analog Stereo Output Level	Unity @ 47KΩ
Toslink Input/Output Level	Standard Toslink level
Analog Stereo Bandwidth	20Hz to 20 KHz
Mechanical	
Size (H-W-D)	25x102x145mm (1x4x5.7”)
Weight (Net)	405g (14.2oz)
Warranty	
Limited Warranty	2 Years Parts and Labor
Environmental	
Operating Temperature	0° to +50°C (+32° to +122°F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-10° to +60° C (+14° to +140° F)
Storage Humidity	10% to 90%, Non-condensing
Power Requirement	
External Power Supply	5VDC@2.6A
Regulatory Approvals	
Converter Unit	FCC, CE, RoHS
Power Supply	UL, CUL, CE, PSE, GS, RoHS
Accessories Included	
1x AC Power Adapter	US, UK or Euro
1x Operations Manual	
Note	
(1) Toslink Audio Support is 2.0 LPCM only	

2.1 Supported Resolutions

INPUTS			
	Resolutions		**Television Standard**
Composite & S-Video	480i (480 lines-interlaced) 576i (576 lines-interlaced)		NTSC PAL
OUTPUT			
	Resolution		**Refresh Rate**
PC	VGA SVGA XGA SXGA UXGA WXGA WSXGA WUXGA	640x480 800x600 1024x768 1280x1024 1600x1200 1280x800 1680x1050 1920x1200	60 Hz 60Hz 60Hz 60Hz 60Hz 60Hz 60Hz 60Hz
HDTV	480p 576p 720p 1080i 1080p	852x480 852x576 1280x720 1920x1080 (i) 1920x1080 (p)	60Hz 50Hz 50, 60Hz 50, 60Hz 50, 60Hz
SDTV	480i 576i		60Hz 50Hz

Note: By default the 1T-VS-622 automatically detects the resolution of the HDMI display device however you can manually control that selection using the OSD menu structure. Leave the Resolution in the "Native" position on the OSD menu to enable the Automatic Detection capability.

3.0 CHECKING PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

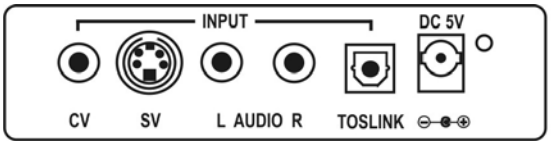
- 1x 1T-VS-622 Video to HDMI Scaler
- 1x AC Power Adapter
- 1x Operations Manual

Note: Please retain the original packing material should the need arise for return. If you find any items are missing, contact your reseller or TV One immediately. Have the Model Number, Serial Number and Invoice available for reference when calling.

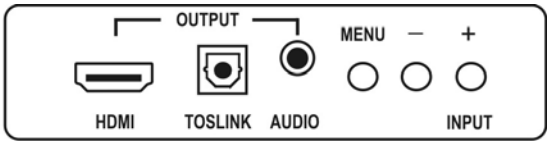
4.0 CONNECTING THE HARDWARE

Please study the panel drawings below and become familiar with the signal inputs, outputs, operational controls and the location of the power connector. Next, turn off the Video source and the HDMI Display and connect the appropriate Video, HDMI and audio cables, first between the source and the 1T-VS-622 and then between the 1T-VS-622 and the display. Plug in the provided AC adapter, first to the 1T-VS-622 and then to an active AC power source. Lastly, turn on the PC source and HDMI display device. (The 1T-VS-622 has no power switch and will begin to function as soon as it has the AC adapter connected to it.)

Notes: (1) You may connect either a Composite Video Input or an S-Video input but you cannot connect both inputs at the same time. The "+" button is used to select which input is active. (2) The Toslink Input is 2.0 LPCM only.



1T-VS-622 Front Panel



1T-VS-622 Rear Panel

5.0 OPERATING THE UNIT

The 1T-VS-622 is controlled via an On Screen Display (OSD) menu structure. Much of the operation of the scaler is done automatically however there may be an occasion where an adjustment is needed, particularly if the input signals are not presented at standard levels. Numerous parameters can be controlled from the menu including adjustment of video parameters, selection of output resolutions and type of audio output.

The menu structure is shown on the next page and is a two tier arrangement. When you press the Menu button for the first time, you will be on the top tier. You can then use the + and – buttons to move up and down the first tier selections until you arrive at the one associated with the parameters you wish to adjust. *(Note that some of the first tier parameters have only one associated adjustment -- e.g. BRIGHTNESS -- whereas others may have several: e.g. OUTPUT.)*

When you have reached the parameter you wish to adjust, press the Menu button again to select that item. If there is only one item in the second tier associated with the parameter, you can use the + and – buttons to make an adjustment. If there are more than one item associated with the parameter, use the + and – buttons to move to the item you wish to adjust, press the Menu button again to select that item and then use the + and – buttons to make the adjustment.

Once the adjustment has been made, use the Menu button and + and – buttons to navigate to where you can exit the OSD.

- **XGA Reset:** Depressing and holding the Menu button and then the + button returns the settings to factory defaults and sets the output to XGA.
- **480p Reset:** Depressing and holding the Menu button and then the - button returns the settings to factory defaults and sets the output to 480p.
- **Input Select Function:** To select the active input between Composite Video and S-Video, press the + button, which toggles between the two inputs.

5.1 Menu Structure

1st Tier Option	2nd Tier Option	Adjustment
CONTRAST	-	0 ~ 100 of Contrast Level
BRIGHTNESS	-	0 ~ 100 of Brightness Level
FINETUNE	- HUE	0 ~ 100 of Hue Level
	- SATURATION	0 ~ 100 of Saturation Level
	- SHARPNESS	0 ~ 100 of Sharpness Level
	- EXIT	Back to 1st Tier
COLOR	- RED	0 ~ 100 of Red Color Level
	- GREEN	0 ~ 100 of Green Color Level
	- BLUE	0 ~ 100 of Blue Color Level
	- EXIT	Back to 1st Tier
SIZE	-	FULL / OVERSCAN / UNDERSCAN / LETTERBOX / PANSCAN
OUTPUT	-	NATIVE / VGA / SVGA / XGA / SXGA /UXGA / 480i / 480p / 720p@60Hz / 1080i@60Hz / 1080p@60Hz / 576i / 576p / 720p@50Hz / 1080i@50Hz / 1080p@50Hz / WXGA / WSXGA / WUXGA
AUDIO	-	EAR PHONE / OPTICAL (Source selection)
OSD	- HPOSITION	0 ~ 100 of OSD Horizontal Position
	- VPOSITION	0 ~ 100 of OSD Vertical Position
	- TIMER	0 ~ 100 of OSD Existing Time (sec.)
	- TRANSP	0 ~ 100 of OSD Transparent Level
	- EXIT	Back to 1st Tier
INFORMATION		SOURCE (Input Interface) INPUT (Input Resolution) OUTPUT (Output Resolution) VERSION (Firmware Version)
EXIT	-	Close OSD Menu

Reset Function: To reset the unit, press and hold the MENU button then plug the DC power into the unit. This will reset the unit to factory default.

6.0 TROUBLESHOOTING

Faulty cables are the most common problem associated with the 1T-VS-622. Make certain you are using the highest quality cables available. In the event of trouble with the unit, inspect the cables for damage and make sure they are completely seated in their connectors. Also make certain that the AC adapter is plugged in to a working AC socket and that the LED, located next to the DC connector, is lighted. Finally, if power is present and the unit does not appear to operate, perform the Reset function described above. After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions before contacting TV One. Should the dealer's technical personnel be unable to assist you, contact TV One via our support website: ***http://tvone.crmdesk.com.*** Create a technical support request on the site and our support team will respond within a short period of time.

7.0 LIMITED WARRANTY

LIMITED WARRANTY – With the exceptions noted in the next paragraph, TV One warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in TV One's opinion, prove defective within this warranty period, TV One, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of TV One. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended. Items integrated into TV One products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to TV One.

If repairs are necessary under this warranty policy, the original purchaser must obtain a Return Authorization Number from TV One and return the product to a location designated by TV One, freight prepaid. After repairs are complete, the product will be returned, freight prepaid.

LIMITATIONS - All products sold are "as is" and the above Limited Warranty is in lieu of all other warranties for this product, expressed or implied, and is strictly limited to two years from the date of purchase. TV One assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

TV One makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of TV One with respect to any defective products will be limited to the repair or replacement of such products. In no event shall TV One be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

8.0 REGULATORY COMPLIANCE

The 1T-VS-622 has been tested for compliance with appropriate FCC and CE rules and regulations. The Power Adaptor/Supply has been tested for compliance with appropriate UL, CUL, CE, PSE, GS Rules, Regulations and/or Guidelines. This Product and Power Adapter is RoHS Compliant.

9.0 CONTACT INFORMATION

Should you have questions or require assistance with this product in areas not covered by this manual, please contact TV One at the appropriate location.

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End of Manual